



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

126. Proposed by J. SCHEFFER, A. M., Hagerstown, Md.

Find the average ellipse inscribed in a triangle, so that the sides of the triangle are tangent to the ellipse.

---

### MISCELLANEOUS.

---

127. Proposed by J. SCHEFFER, A. M., Hagerstown, Md.

The declination of a certain fixed star is  $12^{\circ} 40'$ . Its altitude was observed one day to be  $16^{\circ} 40'$ . Three hours and twenty-four minutes later it was found to be  $40^{\circ} 20'$ . Find the latitude of the place of observation.

127. Proposed by F. P. MATZ, Sc. D., Ph. D., Professor of Mathematics and Astronomy in Defiance College, Defiance, Ohio.

Show how to calculate the velocity of an electrical discharge between a cloud and the earth. Is this velocity a function of the quantity of electricity discharged?

---

### BOOKS AND PERIODICALS.

---

*Elementary Treatise on Navigation and Nautical Astronomy.* By Eugene L. Richards, M. A., Professor of Mathematics in Yale University. 16mo. Cloth, 173 pages. Price, \$1.00. New York and Chicago: The American Book Co.

This is a neat little work dealing with some interesting problems in Navigation. It is elementary and clear in its treatment of subjects, and can therefore be easily read by any one having a knowledge of geometry and trigonometry.

*Elements of Plane Geometry.* By Alan Sanders, Hughes High School, Cincinnati, Ohio. 8vo. Cloth. Price, \$1.00. New York and Chicago: The American Book Co.

This book does not differ very essentially from a great number of recent text-books on geometry. It contains a large list of well-selected exercises for original work on the part of the student, and the demonstrations and suggestions are good. The mechanical make-up of the book is first-class.

*Vector Analysis.* A Text-book for the Use of Students of Mathematical Physics. Founded upon the Lectures of J. Willard Gibbs, Ph. D., LL. D., Professor of Mathematical Physics in Yale University. By Edwin Bidwell Wilson, Ph. D., Instructor in Mathematics in Yale University. 8vo. Cloth, xviii+436 pages. Price, \$4.00, net. New York: Charles Scribner's Sons.

This work belongs to that series of publications known as the "Yale Bicentennial Publications," and is the largest treatise thus far written on this subject in America. The body of the work is divided into six chapters of which the first treats of Addition and Scalar Multiplication; the second of Direct and Akew Products of Vectors; the third of Differential Calculus of Vectors; the fourth of Integral Calculus of Vectors; the fifth of Linear Vector Functions; and the sixth of Rotations and Strains; chapter seven deals with Miscellaneous Applications. This work will be of great value to the mathematician as well as the mathematical physicist.

*An Elementary Book on Electricity and Magnetism and Their Applications.*

A text-book for Manual Training Schools and High Schools, and a Manual for Artesans, Apprentices, and Home Readers. By Dugal C. Jackson, C. E., Professor of Electrical Engineering, University of Wisconsin, member of the American Institute of Electrical Engineering, etc.; and John Price Jackson, M. E., Professor of Electrical Engineering, Pennsylvania State College member of the American Institute of Electrical Engineering, etc. 16mo, cloth sides and leather back, xi+482 pages. New York: The Macmillan Co.

This is the best work of its kind that has yet appeared. It treats in a very lucid manner, every department of electricity and magnetism and their various applications. While written in somewhat untechnical language, yet it is clear, forceful, and scientifically accurate. In this work is found a practical treatment of the dynamo, motor, telegraph, telephone, electric lighting, electric smelting, welding, cooking, wireless telegraphy, Roentgen rays, and many other subjects. Here is a complete description of Niagara Falls Power Company's plant, with illustrations and a map, covering six pages. Throughout the book, frequent use of analogies are made, thus enabling the reader to obtain the clearest possible conceptions of electric and magnetic properties.

In the preparation of this book, the authors have contributed a most valuable work to the literature of the subject, and every one interested in the extension of knowledge and the enlarging of social conditions will want to have a copy of the book.

*The American Monthly Review of Reviews.* An International Illustrated Monthly Magazine. Edited by Dr. Albert Shaw. Price, \$2.50 per year in advance. Single number, 25 cents. The Review of Reviews Co., 13 Astor Place, New York.

*The Literary Digest.* A Weekly Compendium of the Contemporaneous Thought of the World. Price, \$3.00 per year in advance. Single number, 10 cents. Funk & Wagnalls Co., Publishers, 30 Lafayette Place, New York.

*The Cosmopolitan.* In International Illustrated Monthly Magazine. Edited and Published by John Brisben Walker. Price, \$1.00 per year in advance. Single numbers, 10 cents. Irvington-on-the-Hudson.

#### ERRATA.

Page 34, first line under the title, for "1809" read 1896, 3rd edition; and for "Sir" read W.

Page 41, fourth line of second solution, for "rational" read real.

Page 41, ninth line of second solution, for " $\pm$ " read  $=$ .

Page 43, in the last line but three of the first demonstration in Geometry, for " $AB=FB$ " read  $AD=FB$ ; and for " $\triangle ADK$ " read  $\triangle ADB$ .

Page 47, first line, omit "Professor of Mathematics, Bowdoin College."

Page 54, thirteenth line of the solution, for " $m$ " read  $m^2$ .